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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/024,633	12/17/2001	Scott E. Silver	500035.401	2741

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EXAMINER

DICUS, TAMRA

ART UNIT PAPER NUMBER

1774

DATE MAILED: 04/05/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<p align="center">Office Action Summary</p>	Application No. 10/024,633	Applicant(s) SILVER ET AL.	
	Examiner Tamra L. Dicus	Art Unit 1774	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12-5-03.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 24-43 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 24-43 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☐ All b) ☐ Some * c) ☐ None of:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
 * See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
 a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 43 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. It is not understood what dimensions are that are suitable for printing thereon to produce an architectural or construction drawing. No description of any dimension is mentioned within the specification. Overall, the claim as written does not make sense.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 24-27, 30, 33-37, and 39-43 are rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 6,140,412 to Saitoh et al. in view of USPN 6,596,805 Nigam et al.

Saitoh teaches a waterproofing agent for ink jet printing paper where the agent is impregnated into plain paper (naturally having two sides). The agent includes inorganic pigments such as barium sulfate (filler for block resistance of instant claim 30), calcium carbonate or sulfate (tooth filler), alumina (a pigment), satin white (optical brightener) and kaolin white clay (filler for block resistance of instant claim 33). The aforementioned inorganic

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pigments do not have to contain calcium carbonate or titanium dioxide as they are optionally added. The organic pigments may contain acrylic-based plastic pigments (equivalent to instant claim 37). Saitoh includes also additives such as staining mordants, thickeners, coloring agents, antistatic agents, preservatives, water-soluble resins and adhesives. The water-soluble resins include styrene-butadiene copolymers, methyl methacrylate-butadiene copolymers or copolymers of acrylic acid esters and methacrylic acid esters and other acrylic-based polymer latexes (per instant claim 25), any of which may be used alone or in a desired combination. See col. 5, lines 1-46. Wood pulp fibers (cellulosic fibers) are also included in the paper at col. 4, line 66 (instant claim 40). Polyesteramide polyols (an additive to enhance wet strength per instant claims 34 and 35) is included (see col. 2, line 11). At col. 4, lines 60-62, the coating amount of the waterproofing agent is $0.1-10 \text{ g/m}^2$, which falls within Applicant's range of $3.7 - 5.6 \text{ g/m}^2$ per instant claim 27.

Saitoh does not teach the sheet is suitable for use in a photocopier or laser printer and capable of fixedly and legibly bearing images printed directly thereon by means of the photocopier or laser printer or having dimensions suitable for printing to produce an architectural drawing (instant claims 24 and 43). However that a sheet is able to be printed fixedly and legibly bearing images directly thereon by means of the photocopier or laser printer or having dimensions suitable for printing to produce an architectural drawing is not germane since it has been held that an element that is "being able to" perform a function is not a positive limitation but only requires the ability to so perform. It does not constitute a limitation in any patentable sense. *In re Hutchinson*, 69 USPQ 138. Further to the suitability of instant claim 43, because the same materials are provided, it is inherent that the invention would act in the same manner.

Saitoh does not teach wax or a styrene-acrylic emulsion or acrylic compounded resin (instant claims 24, 26, 36, or 39). Nigam teaches an aqueous fast-driable resin composition and its production process and use. The composition includes a styrene-acrylic resin, and polyethylene wax in Example 1. The composition is used in ink jet papers. See col. 9, lines 15-20. It would have been obvious to one of ordinary skill in the art to incorporate wax or a styrene-acrylic emulsion or acrylic compounded resin because Nigam employs them for use in coatings for ink jet papers as detailed in Example 1. The wax, styrene-acrylic emulsion or acrylic compounded resin materials are inherently hydrophobic and would be obvious to incorporate in weatherproof sheets.

Saitoh does not teach a paper thickness as instant claims 41-42. However, the thickness of paper is a result-effective variable and therefore an optimizable feature. It would have been obvious to one of ordinary skill in the art to produce a thickness, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272. Thickness of paper effects the strength.

4. Claims 28-29, 31-32, and 38 are rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 6,140,412 to Saitoh et al. in view of USPN 6,596,805 Nigam et al. and further in view of USPN 6,677,006 to Otani et al.

Saitoh is relied upon above. Saitoh does not teach the weight percentages of ingredients or moisture content of instant claims 28-29, 31-32, and 38. Otani teaches an ink-jet recording material. The recording material includes impregnated paper. See col. 5, lines 15-20. Otani teaches a light resistance-imparting layer and the coloration layer of the paper includes various additives such as a pigment-dispersing agent, a thickener, a coloring pigment, a waterproof

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agent, a surfactant and a wet paper strength increasing agent can be added in appropriate amounts, if needed. See col. 6, lines 9-14. Example 1 includes moisture content of 5% is suitable for coating weights between 5 and 8 g/m². It would have been obvious to one of ordinary skill in the art to have a moisture content of 5 percent because Otani teaches when coating paper between amounts of 5 and 8 g/m², the moisture content of the coating is 5% as shown in Example 1. While the amounts of barium sulfate, wax, and resins are not provided by Saitoh, such weight percentages are result effective variables and are therefore optimizable. It would have been obvious to one of ordinary skill in the art to produce a thickness, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272. Weight percentages of pigment and resin effect the image print quality, as suggested by Otani above.

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. 5413867 to Chang et al. teaches a process for treating cellulosic materials. 4931359 to Yagi et al. teaches electrostatic recording medium. 4336297 to Fushiki et al. teaches an electrical laminate.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tamra L. Dicus whose telephone number is 571-272-1519. The examiner can normally be reached on Monday-Friday, 7:00-4:30 p.m., alternate Fridays. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cynthia Kelly can be reached on 571-272-1526. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

March 31, 2004

[tld]

CYNTHIA H. KELLY
SUPERTECH PATENT EXAMINER
TECHNOLOGY CENTER 1700

A handwritten signature in black ink, appearing to read 'Cynthia H. Kelly', with a stylized flourish at the end.